ATHENS READING GROUP IN LINGUISTICS
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"EXPANDING THE SCOPE OF CONTROL AND RAISING"
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Overview of the presentation:

(1) The phenomenon
(2) The control debate: Hornstein vs. Landau
(3) The data: backwards control/raising, copy control/raising
(4) Imposters? Modern Greek
(5) The proposal
(6) Conclusion: More imposters? Ancient Greek

1. THE PHENOMENON AND SOME PRELIMINARY OBSERVATIONS

The constructions:

Backwards control
Backwards raising
Copy control
Copy raising

All the above cases seem to involve an A movement chain in which the lower, not the higher copy, is pronounced.

"Two main innovations in linguistic theory allow us to predict a greater range of variation in control and raising"

(1) Control is better analysed on a par with raising, as a movement construction (*pace* Hornstein 1999 and Manzini & Roussou 2000 among many others)
(2) Copy theory of movement increases the possibilities of manifestations of movement constructions.

[Higher copy ... ~~Lower copy~~]	Anaphora
[~~Higher copy~~ ... Lower copy]	Cataphora
[Higher copy ... Lower copy]	Resumption

Control – Raising – Resumption should all be treated alike
(Although, even if the first two involve movement, it will be A movement, while the latter might either involve movement (but crucially A bar movement) or base generation – cf. the distinction between *true* and *apparent* resumption)

Typology of control and raising:

Higher copy pronounced	Lower copy pronounced	Resulting structure
✓	✗	Forward (anaphoric) control/raising
✗	✓	Backward (cataphoric) control/raising
✓	✓	Copy (resumptive) control/raising

2. CONTROL AND RAISING TRADITIONALLY AND RECENTLY

Control:

(1) Ari managed [_____ to sing]

Raising:

(2) Ari seemed [_____ to sing]

Control: a dependency between two argument positions in which the referential properties of the overt controller determine the referential properties on the (null) controllee.

Raising: a cross-clausal dependency between two argument positions in which the higher argument plays no role in the predication of its clause, which is why the higher argument can alternate with an expletive subject under appropriate conditions:

Unraised version of (2):

(3) It seemed that Ari sang

But:

(4) * It managed that Ari sang

Traditionally (1) and (2) involve two very distinct mechanisms: control involves base generation of the category PRO as the null subject of the infinitival clause, whose distribution is predicted by the PRO theorem: PRO must be ungorverned (Chomsky 1981) and whose interpretation is either obligatorily controlled by an argument of the main verb or is arbitrary.

Traditionally, the main difference between control and raising is the thematic structure of the main predicates: control predicates have an external theta role, while raising ones do not and that is why they can have an expletive subject (3) where the embedded subject can raise to (2).

More recently there has been a debate concerning the possibility of analysing control like raising, involving movement (Hornstein 1999, Manzini & Roussou 2000, Hornstein 2003, Hornstein & Boeckx 2004 and Boeckx & Hornstein 2006 among others) or maintaining the control module as it is, separate from raising (Landau 2000, 2003, 2004, 2005, 2007, 2009 and Bobaljik & Landau 2005).

(As we will see shortly, Polinsky & Potsdam ascribe to a hybrid between the two versions, whereby control involves movement á la Hornstein et al but also the cross-linguistic manifestations of control depend upon the feature specifications of C and T heads of the embedded clause á la Landau's *calculus of control*.)

Let us briefly run through the two camps:

Hornstein: control is movement

- Obligatorily controlled PRO does not exist: it is a DP trace
- Arbitrary PRO is a pronoun, small *pro* (Cf. Bouchard 1984: PRO is not one heterogeneous element that behaves either like an anaphor or like a pronoun: instead it is two elements: an anaphor when it is controlled and a pronoun when it is arbitrary)

- Hornstein abandons the theta criterion, at least partly, and argues that "there is no upper bound on the number of theta roles a chain can have".
- Welcome things that come for free with this analysis: locality of control. If control is reduced to A-movement, the strictly local character of the relation between PRO and its antecedent follows.
- Moreover, treating OC PRO as a residue of movement derives the prohibition against split antecedents.
- Additionally the null phonetic status of PRO also follows: if it is the same as a DP trace, one does not need to explain why there is no overt counterpart of it.
- But! such an account would predict structures where the alleged "moved" subject stays *in situ* analogous to the "unraised" version of raising verbs (example 3) with an expletive subject. In other words if PRO is a DP trace then why don't we ever see a sentence like (5) in languages like English?

(5) * It wants John to leave (instead of *John wants to leave*)
(6) It is likely that John will leave (instead of *John is likely to leave)*

In other words backwards control, is the perfect argument in favour of a movement analysis of control.

- Another problem for Hornstein: control into adjuncts:

(7) Plouto$_i$ can row well without PRO$_i$ training too hard
Answer: sidewards movement Nunes 1995.

- But the biggest problem for Hornstein: partial control (PC) as argued in Landau 2000:

(8) The chair$_i$ decided PRO$_{i+}$ to gather at 6

Landau: Control is Control

- Obligatory Control (OC) and Non-obligatory Control (NOC) but also Exhaustive and Partial Control (EC and PC respectively) as parts of OC and Long-distance (LD) and Arbitrary Control as parts of NOC.

Examples:
(9) Christina$_i$ managed PRO$_i$ to finish the handout on time (EC)
(10) Plouto$_i$ preferred PRO$_{i+}$ to rehearse at 4 (PC)
(11) John said that making a fool of himself/herself in public disturbed Sue (LD)
(from Landau, 2000: ex. 4a/b p. 94)
(12) It would ruin this song, PRO$_{arb}$ to play it fast (Arb)

- In order to account for the two variants of OC Landau argues for two different control mechanisms: (standard) control of PRO in EC and binding of Agr in PC (á la Borer 1989: Anaphoric Agr).

- A crucial assumption is that what differentiates EC from PC infinitival complements is that the latter but not the former are tensed. This is illustrated with data like the following (taken from Landau, 2000: examples 11 a/b, p. 6):

(13) *Yesterday, John managed to solve the problem tomorrow (EC)
(14) Yesterday, John wanted to solve the problem tomorrow (PC)

The typology of Control (Landau, 2000):

		Exhaustive – **EC** (Tenseless infinitives)	PRO
	Obligatory-**OC** (VP-internal infinitives)	Partial –**PC** (Tensed infinitives)	Control of Anaphoric Agr (C-T on C)
Control			
	Non-obligatory – **NOC** (VP-external infinitives)	Long-distance – **LD**	PRO is a logophor
		Arbitrary	PRO is bound by a generic operator

- What about control into finite clause (Balkan subjunctives, Hebrew etc)? Calculus of control!
  +/- T/Agr features that exist both on T and C of the embedded clause and allow or disallow control from the matrix predicate

3. THE DATA

The first backwards control analysis: Japanese *Counter-Equi* Kuroda 1965, 1978.

(15) Chelswu-ka Yenghi$_k$-lul [~~Yenghi$_k$ -ka~~ hakkyo-lul
Chelswu-nom Yenghi-acc school-acc
ttena-tolok] seltukhayssta.
quit-comp persuaded

(16) Chelswu-ka ~~Yenghi$_k$ -lul~~ [Yenghi$_k$-ka hakkyo-lul ttena-tolok]
Chelswu-nom Yenghi-nom school-acc quit-comp
seltukhayssta.
persuaded

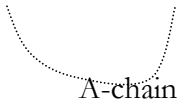
Case marking evidence with data from scrambling and NPI licensing show that the lower copy of the control chain indeed remains overt. The higher copy is deleted but, prior to deletion, it participates in a number of clause-bound syntactic operations: it can license honorific agreement on the matrix verb, bind clausemate reflexives, and, as (17) shows, determine the case of postnominal quantifiers (in this example, whose case must match the case of the deleted accusative DP).

(17) sensayngnim-un ~~hakpwumotul-ul~~ [hakpwumotul-i
teacher-top students parents-acc students parents-nom
canyetul-kwa te mahnun sikan-ul ponay-tolok]
children-with more much time-acc spend-comp
motwu-lul seltukhayssta.
all-acc persuade
'The teacher persuaded all the students' parents to spend more time with their children."

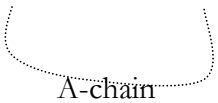
Backwards control in Tsez:

(18) [yesi žek'ā ʕagarawyo-r ʏutku roda]
this man.I.erg relative-dat house.abs build.inf
nesā nesir oqsi
refl.dat began
"The man began for himself (for his own sake) to build a house for his relative"

(19) kid-bā [~~kid-bā~~ čorpa bod-a] ħakarat neɬsi.
girl-erg girl-erg soup.abs make-inf attempt gave
Forward control



(20) kid [kid-bā čorpa bod-a] y-oqsi
girl.abs girl-erg soup.abs make-inf ii-began
Backward control



Unlike Korean, Tsez does not allow an alternation between the forward and backward pattern with one and the same matrix predicate. The two verbs presented here are obligatorily backward control predicates. Although the reasons for such obligatory control are not entirely clear, we hypothesize that obligatorily backward control predicates may have a defective thematic structure.

Backwards subject raising in Adyghe:
As evidence for the syntactic presence of the upstairs DP, the raised DP can take wide scope over matrix clause negation. Thus, in (21), the wide scope reading (i) would not be possible if the higher copy were not present in the matrix clause.

(21) [č'ale-xe zeč'e-m-jə pjəsme-r Ø-a-txə-new]
boy-pl all-erg-conj letter-abs 3sg.abs-3erg-write-sup
~~č'ale-xe zeč'e-m-jə Ø-qəčečər-ep~~
boy-pl all-abs-conj 3sg.abs-happen-neg
(i) All the boys are such that they do not happen to write a letter.
(all boys > Neg)
(ii) Not all the boys happen to write a letter (Neg > all boys)

Similarly, the construction presented here permits ambiguous scope readings, just as in familiar forward raising. In (22), the DP can take either wide or narrow scope. If the embedded quantified DP were not represented in the matrix clause the scope ambiguity would be puzzling.

(22) [pŝaŝe-tfə-m pjəsme-r Ø-a-txə-new] Ø-qəčeč'əˠ.
girl-five-erg letter-abs 3sg.abs-3erg.pl-write-sup 3sg.abs-happened
(i) There were five girls that happened to write a letter.
(ii) Five girls were such that they happened to write a letter.

Copy raising:

(23) John seemed like he hated the movie
(24) Richard seems as if he won
(25) I kopeles fenonde na fevjun

The raised DP leaves an overt copy behind.

Copy control:
In Assamese, subject copy control seems to occur in infinitival adjuncts, as in (26). The pattern is clearly that of obligatory control: the copied element must be subject and obviation is impossible with this particular infinitival complement, (27).

(26) [ram-e dukh kor-i] *(tar) bhagar log-il.
Ram-erg sorrow do-inf he.gen exhausted feel-past

(27) *[ram-e dukh kor-i] Prcxad-cr bhagar log-il.
Ram-erg sorrow do-inf Prakhad-gen exhausted feel-past

Summary of the data:
All the possibilities outlined in the beginning of the handout seem to be possible:
Backwards control (Japanese, Korean, Tsez)
Backwards raising (Adyghe)
Copy raising (English, Modern Greek (?) etc)
Copy control (Assamese)

4. IMPOSTERS?

Two types of constructions are probable posers for backwards phenomena:

(a) English agreement mismatches with expletive subjects
(b) Modern Greek "raising" with agreeing agreement between the main and the embedded verbs

English:

(28) Well, there appear to be some errors on the page
(29) There appear to be two major ways of learning

Agreement on the verb is determined by the phi features of the associate

If these were true backwards raising constructions we should expect the raised DP to be able to take wide scope over negation (like in the Adyghe data), something which is not the case:

(30) There do not appear to be two major ways of learning prevalent.
a. It doesn't appear that there are two major ways of learning prevalent.
Neg > two ways;
b. # Two major ways of learning are such that they do not appear to be prevalent.
two ways > Neg

Also: the DP in the lower clause is invariably indefinite, consistent with the definiteness effect (Milsark 1976). Forward raising constructions do not show the definiteness effect.

Greek:
The matrix clause does not contain any copies of the embedded subject, deleted or not, but the matrix verb agrees with the embedded subjects simply because this is the closest DP that is available for agreement features (Alexiadou & Anagnostopoulou 1999)

(31) Stamatisan na mu benun psili st'aftia

Q float is impossible in the matrix clause, which is unexpected if the deleted copy is there:

(32) Dhen stamatisan [na epenun ola ta afendika afto to sxedio]
(33) *Ola stamatisan [na epenun ta afendika afto to sxedio]

So, the difference between the Greek constructions and backwards raising is that the higher exists in the latter, participating in various syntactic configurations while it does not in Greek.

The correct analysis for the Greek data: "the impression of backwards raising may arise when a raising predicate agrees with a non-local, lower constituent that otherwise has no representation in the upper clause"

I.e. Greek is like English (28) – (29)

5. THE ANALYSIS

Independent language properties that allow a language to make use of the backward and copy options:

(a) The complement clause must be capable of licensing overt subjects
(b) (Assuming that raising and control are analyzed as movement) the complement clause must be transparent for A movement

"We propose that finiteness has to do with the featural content of C and T heads (essentially following Landau). We also propose that semantic tense is the main feature determining finiteness and the transparency of an embedded complement when it is a CP"

Parallelisms between tense and specificity (Partee 1984)

Semantic tense and transparency:

Independent tense	Dependent semantic tense	Anaphoric tense
Opacity	Possible transparency	Transparency

We follow Landau's (2004:839, this volume) proposal concerning the scale of finiteness which in turn is tied to the value of the uninterpretable [T] feature on the embedded C head:

(a) Independent tense: no [T] on C (Ø)
(b) Dependent tense: [+T] on C
(c) Anaphoric tense: [- T] on C

The binary [T] feature, either [+T] or [-T], is accompanied by an optional EPP feature that allows C to have an A-specifier. In the derivation involving a C head with dependent or anaphoric tense, the subject of the embedded clause moves to Spec, CP in the left periphery of the embedded clause, checking its EPP-feature (see Tanaka 2002 for a

similar derivation).

In sum, movement out of a dependent or anaphoric tense complement is allowed because of its valued [T] feature and accompanying EPP feature. If the lower copies in the chain are deleted, standard forward pattern occurs. If, however, **something** forces the deletion of the higher copy, backward raising/control becomes possible

- What is this something?

In earlier work (P&P 2002) they analyzed backwards control as covert A movement (at LF). With the copy theory of movement they don't need that: the copy satisfying the EPP may be deleted at LF, but that's irrelevant.

6. MORE IMPOSTERS? ANCIENT GREEK DATA

(34) Ego: oun (…) ouch he:goumai [didakton einai arete:n.]
I-NOM then not think-1 SG taught-ACC to-be virtue-ACC
'I then think that virtue cannot be taught.' (Plato, *Protagoras*: 320b, 4)

(35) Oiomai [eme phaulon einai ze:te:te:n]
Think-1 SG me-ACC bad-ACC to be researcher-ACC
'I consider myself to be a bad researcher' (Plato, *Charmides:* 175e)

(36) Bouloime:n an, eipon, [eme te dunasthai aute:n apodounai]
Want-1 SG-OPT an said-1 SG me-ACC and to be able her-ACC to give
[kai humas komisasthai]
and you-ACC to bring
'I said that I would want me to give her away and you to take her'
(Plato, *Republic:* 6. 507 a)

(37) Elpizei [**dunatos** einai archein]
Hopes-3 SG able-**NOM** to be to rule
'He hopes to able to rule' (Plato, *Republic:* 9. 573c)

(38) **Kurou** edeonto [ho:s **prothumotatou** genesthai]
Cyrus-GEN pleaded-3 PL as most willing-GEN to-become
'They pleaded to Cyrus to become as willing as possible.'
(Xenophon, *Hellenika:* I.5.2)

(39) Nun **soi** exestin [**andri** genesthai.]
Now you-DAT is-possible man-DAT to become
'It is now possible for you to become brave.'
(Xenophon, *Anabasis:* VII.1.21)

(40) Philanthro:p**on** einai dei
Friendly-ACC-3 SG to be must-3 SG
'One needs to love people' (Isocrates, *Nicocles*: 15)

(41) Dro:nd**as** he:dion (esti) thanein
Acting-PRTCPL-ACC sweeter-NEUT is-3 SG to die
'It is better to die in action' (Euripides, *Helen:* 814)

(42) All' emoige, ephe: o: So:crates, **didakton** einai dokei
But me-DAT *ge* said-3 SG oh Socrates tought-ACC to be seems-3 SG
'But, he said, for my part Socrates, I think it is teachable (wisdom)'
(Plato, *Euthydemus:* 282c)